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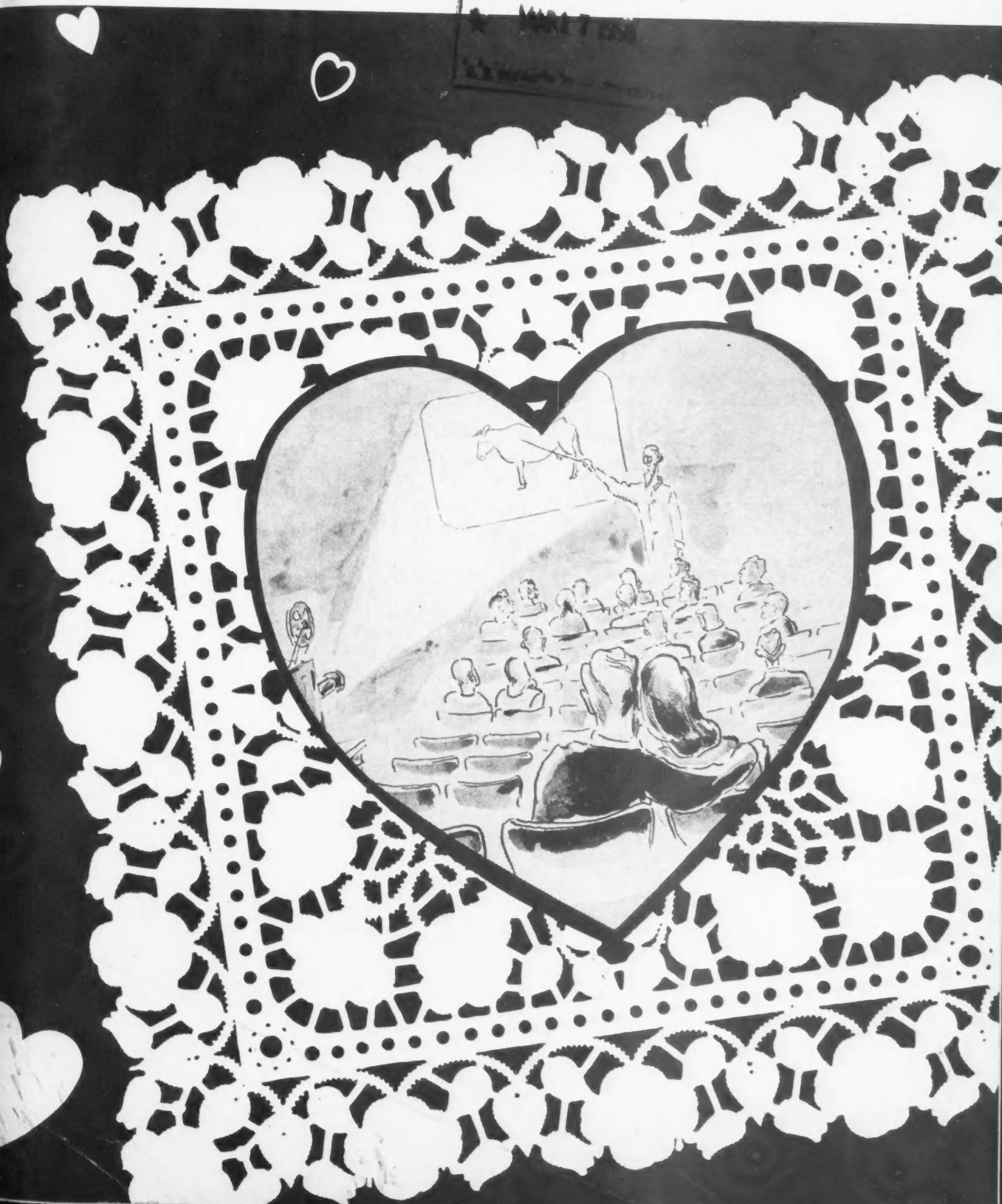
Cornell Countryman

February, 1958

Our 54th Year

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WINTER



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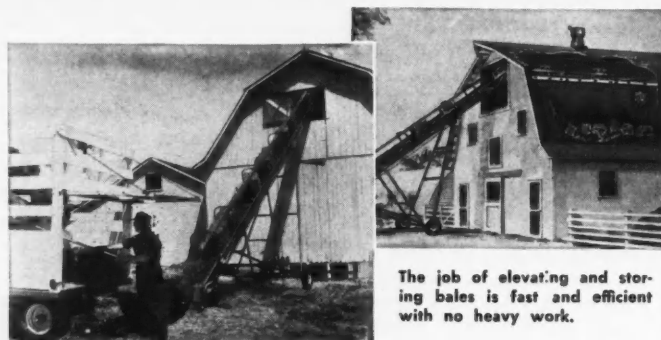
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Cornell Countryman

Vol. LV—No. 5
Founded 1903
Incorporated 1904
Member of Agricultural College
Magazines, Associated

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The Cornell Countryman is published monthly from October through May by students in the New York State Colleges of Agriculture and Home Economics, units of the State University of New York, at Cornell University. Entered as second class matter at the Post Office, Ithaca, New York. Printing by Art Craft of Ithaca. Subscription rate is \$1.75 a year or three years for \$2.75; single copies, 25 cents.

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From the Editor's Desk

217 Strangers -- Must They Remain So?

A course is available on campus called "Know Your Fellow Man." Shouldn't this course attract overwhelming registration and student approval? Yes, but on the contrary, it has been a complete failure.

Don't bother looking in the college catalog for the number of this course. It isn't listed—it has no hours, no professor teaching it.

You say this is a tall tale and no such course exists? Stop a minute and think. There are, on the upper campus, more than 217 foreign students representing over 30 foreign countries. The customs, ideas, and philosophies of these students are numerous. These students are the basis of the course "Know Your Fellow Man."

But we Americans appear to be a sorrowful lot. We let the foreign student spend from two to five years living and working on campus without asking his name, country, or future plans. It's a wonder that we even know that countries really exist outside the United States.

Upon talking with many foreign students, I was told that most Cornellians are just not interested in life beyond their textbooks and Ivied Towers. A graduate student from India said that I was the first student to speak to him on friendly personal terms. This student has been on campus for over three months. Further inquiries provided answers that echoed the words of this man.

Today, as never before, our world is faced with problems that are difficult to solve. Misunderstandings exist, both national and international, due to lack of knowledge concerning our fellow men.

Here at our university where political boundaries are removed, where the opportunities exist to gain an understanding of our fellow man unhindered by social pressures, we find few who make the attempt.

We are the hosts and as such we should make introductions and extend invitations. The unlimited supply of knowledge concerning foreign life is waiting for the ambitious student. A mere "Hello, what is your name?" could be the key to a lifetime friendship.

Never again will you have the opportunity to receive two educations simultaneously, the most valuable one costing but a few hours of spare time (better than poker or bridge). Our world craves peace, and only through understanding can it be gained.

As one foreign student studying here under a State Department scholarship said, "Your State Department told me that the American student would be warm, interesting and friendly. I have not found this to be so. If this campus is an example, the American is cold, aloof, and disinterested in world affairs and problems." The student went on to explain the mistake we are making by not being friendly. Most foreign students studying here will some day return to their native lands and lead their people. "Many of these students," he concluded, "are going away with a low regard for the American student and with memories of a very uninteresting visit."

Many foreign students take this dim view. No catalog lists "Know Your Fellow Man," but this should not stop us from creating friendships with the students who have come to the United States to learn and to teach. Perhaps some day we will live in an understanding world. We must help create this world.

G.P.H.

CORNELL COUNTRYMAN

Farm Practice

Future Science Teachers Score Farm Practice.

by CAREY W. FLETCHER '58

I am a science education major and have worked 34 weeks on a farm. The experience I have gained will be of little value to me as a ninth grade general science teacher. My time could have been much better spent working with children or in a laboratory.

In an attempt to get other views on the subject, I distributed a questionnaire to 76 science education majors. Some of the significant responses I received follow:

Aspect of Evaluation	Helpfulness (%)				
	low	fair	good	high	tops
1. 13 weeks of farm experience for students interested in science teaching.	33	38	18	8	3
2. 27 weeks of farm work.	69	24	0	4	3
3. 40 weeks of farm work.	88	12	0	0	0
4. A committee set up to serve as an appeals board.	3	0	31	38	28
5. Allowing science teachers, after fulfilling the 13 credit requirement, to obtain credit for work more closely related to science teaching, e.g. nature counsellor.	0	3	3	23	71
6. The requirement as a means of attracting science teachers to Cornell.	94	0	0	3	3
7. A requirement set up and administered by the Science Education department to replace this system.	3	0	21	31	45

AT the end of the questionnaire was space for "any other specific criticisms of our present farm practice system." These are some of the replies:

"I lack knowledge in science teaching and need more experience working with children." "Farm practice eliminates many prospective science teachers from the Ag. School." "The idea of farm practice is good; but the system needs reevaluating, and more leniency must be given to majors not related to agriculture." "Give the choice of summer job to the student."

I would suggest that 13 farm practice credits be required of science education majors in order to give them a taste of rural life. An additional 27 credits should be required (of both men and women) in fields closely related to teaching and administered by the education department.



Two former strangers get acquainted.

FEBRUARY, 1958

The EMPIRE Story

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Livestock marketing in New State represents a large and important part of rural income.

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Other important milestones in 1957 were the acquisition of two more Empire Stockyards, one at Dryden, and one at Watertown, and the sale of the 2,000,000th animal.

In the large and important business of livestock marketing in New York State, Empire is proud of the growing number of folks who recognize that *it's good business to do business with*

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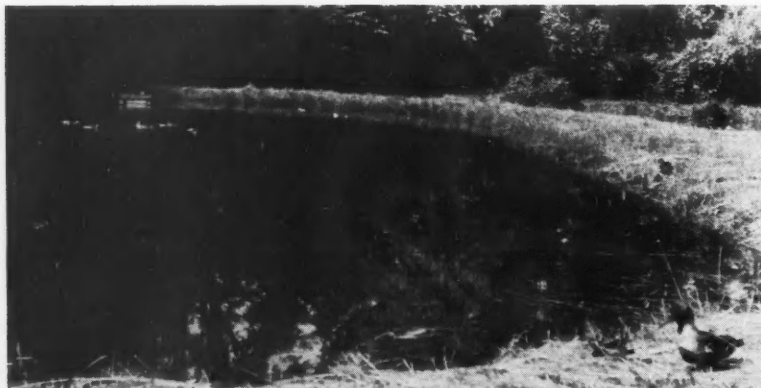
Stockyards at

Bath - Bullville
Caledonia - Dryden
Gouverneur - Greene
Oneonta - Watertown
West Winfield

THE red and white bobber sits placidly on the surface of the water. You look around, concentrating on the darting of a little brown bat, chasing insects in the gathering dusk. But you are actively engaged in fishing and your mind shouldn't wander. You try to locate the bobber where you had last thrown it. It is gone. Your pulse quickens as you pull your line taut; the battle begins. Finally, the blue gill concedes, lying on his side on the shore, gasping for

Your Most Valuable Acre

By MICHAEL D. MARIEN '59



oxygen. His only hope lies in a few last flip-flops, when you take him off the hook. Barring a getaway, this is dinner and a good one!

Is this Canada? The Adirondacks? The Catskills? No, this can be happening in your own back yard.

If you already have or are planning to have a farm pond, you should reap as many benefits from your most valuable acre as you possibly can. And one of the best ways to do this is stocking the pond with fish. Underwater farming involves the same processes as farming on land—planting, maintenance, and harvesting.

THE three most successful stocking patterns are large mouth black bass and bluegills, stocked at 100 bass to 1,000 bluegills per acre, trout at 400 per acre, and baitfish stocked at 200 to 800 pounds per acre. These figures vary as the fertility of the water varies. Other fish that can be stocked are channel catfish, bass (alone), and bass with golden shiners. The latter pattern may become a good prospect in the future.

The fish can be obtained free from the U. S. Fish and Wildlife Service or may be bought from private hatcheries. The price depends on the size of the fish. In addition the New York State Conservation Department will furnish free fish if the waters to be stocked will be open to the public.

The bass-bluegill relationship is the most popular throughout the country,

especially in the Southeast. Although both species belong to the sunfish family, the bass feed on the smaller bluegills (or bream as they are known in the South) which in turn feed on small organisms that are propagated by adding fertilizer to the water. Both species are hardy, sporty, and tasty.

LIKE sweet corn, a predator-forage fish such as the bass-bluegill relationship must be thinned out in addition to maintaining the proper ratio. Thus there must be regular fishing, which is bad news for the wife who wants her spouse to mow the lawn when he is finished with the daily work. This ratio must be maintained or the surviving species will eat itself into stunted oblivion. For example there is the game fisherman that concentrates on the glamorous game fish like bass, pike, muskellunge, and trout and leaves the little "pan" fish such as the rock bass, crappies and pumpkinseeds to overpopulate an area. Practically any fisherman has complained at times about either catching nothing or catching only the very little ones. This causes some very sarcastic comments such as "Send your grandpappy up here" or "Come back in a few years." But—grandpappy may be as small as junior due to the overcrowding. It is easy to see that a given amount of water with a certain fertility can support a certain number of fish. When fishing an overpopulated area it is a good conservation practice to kill stunted

fish instead of throwing them back. This leaves room for others to grow.

The second type of stocking is the trout pond. This requires a water temperature under 70° for survival. 58-64° is the best. Because of this only one third of the New York State ponds can support trout. Unlike the bass and bluegills, trout cannot reproduce in ponds and a high rate of mortality begins in the third year. To get a maximum yield 2-3" trout fingerlings are stocked in the fall. Then 50% of the trout should be removed in the first year when they are 9" long and all should be removed in the second year and the pond restocked.

TROUT feed mainly on insects, so it is not as important to fertilize the water to aid the growth of the small organisms that fish feed on. Brook, rainbow, or brown trout may be stocked. Brook trout are the hardiest.

Bait fish ponds are becoming a thriving business throughout the country. There is a high demand for bait fish, and producing them in ponds instead of seining natural waters can save money, produce better quality bait, and provide a ready bait supply at any season. Young fish or fingerlings of different species, colloquially and incorrectly called "minnows," do not come under the heading of bait fish. Commercial bait fish include the white sucker, a member of the sucker family, *Catostomidae*, and the creek chub, fathead minnow, golden shiner, and goldfish that are members of the minnow family, *Cyprinidae*. In the South, goldfish are the most popular bait, while the fathead minnow, golden shiner, and white sucker share the honor in the North. A thorough study of bait fish raising may be had by obtaining the Cornell University extension bulletin, No. 968: *Raising Bait Fish and Crayfish in New York State Ponds*.

Fishing is one of the most popular sports in America and there is no reason why everyone shouldn't get into the fun. There is no doubt that underwater farming is here to stay.

Glamorize your room.

It's easy; the
little things
do a lot.



By BRENDA L. DERVIN '60

Let your room express your personality.

Make Your Cubicle Livable

SHOCKED and forlorn is the freshman confronted with a postage stamp sized cubicle instead of the one-room apartment she had fancied for her dorm residence. Yet, this barren room can be turned into a one-year paradise with some imagination, elbow grease, and little money.

PERSONALITY is the cue to your decorating problem, so its best to start off with a self-analysis—what do you want your room to say about you? Perhaps, you'd like to live in a calypso caravan, a Parisian cafe, a country carnival. Whatever your room turns out to be, you'll enjoy it more if it has your personal signature.

After you've decided your theme, jot down what activities will take place in this one-room apartment—studying, storage, sleeping, entertaining, and just plain loafing. Chart your space and furniture arrangement according to these activities. The college-room is best suited to the sitting room arrangement where beds double as sofas, placed horizontal along the walls. Skillfully arranged furniture kept from protruding into the center of the room as much as possible does wonders for a small room.

So far, the furniture is arranged and the storage organized. Now comes the real job—color.

Color schemes are based on the color of your walls. This rarely presents a problem, however, as most dorms have neutral pastel walls. From here on, the sky's the limit — Van Gogh, a Dutch costume, a fashion plate, a symphony—all can inspire.

The best color schemes have one, two, or three hues with one predomi-

nant shade or color. The predominant color should be one of the more neutral and darker tones of your scheme, so that as the items get smaller the intensity or brightness of color may increase. A good example of this is a bright red throw pillow as an accent for dark green and blue plaid spreads.

If your room is really small, some value of yellow or even orange would give an illusion of space. Pale blues and greens are also good. Don't stress very dark colors unless your room gets a lot of light.

You haven't spent a penny yet. But from here on, thought and invention save the budget. However, there is no end to the economical possibilities for room decoration.

FABRICS for curtains and spreads should be washable and serviceable. Usually, the bed-spread wears better if it's darker. Corduroys, denims, and monk's cloth are all good. For curtains, you can either duplicate the spread fabric or introduce a new texture with percale, gingham, marquise, or even burlap. All can be purchased either ready-made or in yard goods and vary from inexpensive to moderate price.

Every college room needs a bulletin board or two—both for wall decoration and as a hanging place for all those little odds and ends that collect. Standard bulletin board can be purchased cheaply and in all shades. Or, you can use your spread fabric or burlap as a pin cloth to hang from the wall molding.

Collapsible deck or sling chairs, and coffee trays and stands also add character to your room. Today's mod-

ern co-eds like those larger square pillows that pile on top of each other to form an ottoman or separate to serve as cushions for that Tuesday afternoon bridge four-some. These can all be purchased at any five and dime at relatively inexpensive costs.

The curtains are up, the bedspreads made, the bulletin boards hung, but the walls are otherwise bare and empty. Here, you add your final personality touch to that theme with which you started.

For the travel-minded co-ed every travel agency has posters from Mexico, Spain, or just anywhere. Haiti offers a wealth of ideas — Sombrero hats pinned to the corners of the bulletin board, miniature bongo drums hung from the wall-molding, and a Harry Belafonte album upright on the record table. Burlap draperies and slat bamboo shades reaching from the floor to the ceiling would complete this Latin American scene. All the fixtures are inexpensive, attractive, and give a small college room a feeling of height and grandeur.

ANOTHER example is the carnival room with a toy managerie, haloween masks, candy-striped curtains, and paper fish mobiles. The Orient is also a possible theme with its coolie hats, kites, and low pillow seats. In this one theme, a five and dime offers many ideas with its imported gadgets from Japan and China.

Thus comes the distinctively different college room; the room that doesn't become dull after a month's time; the room that belongs to its occupant; the room that didn't cost much money, but came from imagination, elbow grease, and personality.



At the end of a rein.

The faithful workhorse is almost entirely swallowed up by tractor power.

By JILL H. BECKOFF '61

End of a Reign

FIFTY-thousand reigning years have ended for the workhorse. He was once the major source of power for transportation and work; now little is left but the horsepower we have built into our machines.

We get as sick as a horse, warn each other not to put the cart before the horse, and are careful not to spur an unbroken horse. Horses are ridden for pleasure and used in cowboy movies and television shows; but rarely do farm work anymore.

The main reason for the abandonment of the original source of horsepower is its inefficiency — the same factor that delayed its original adoption. Until the Middle Ages a horse in Europe ate four times as much as a man and could pull only four times as much, or less. In addition, a man lives longer. Therefore, man used his fellow beings to do his work: either as a wife who did the heavy work while he went out hunting or, when civilization advanced, as slaves.

THE biggest impetus to the development of horsepower was the invention of the harness. Until that time, the only pulling a horse had to do was on a chariot. These were light encumbrances—a platform with two wheels on which a man or two could stand. The horse was attached to a single pole by a breastband.

This was all well and good for a flimsy little chariot but with a heavy wagon it was disastrous. Were the horse to pull hard on a breastband, it would slide up his neck, cut off his blood pressure, and choke him. This was uneconomical use of power.

THIS problem, obviously, was solved. Someone, probably in China, discovered that if he put one pole on each side of the horse, the horse would use his shoulders instead of his neck in pulling heavy vehicles. Thus, the horse was not only kept alive, but was enabled to pull about fifteen times its own weight.

About one thousand years after its discovery this innovation came west. When it did, the breastband, attached to the shaft on either side, was made looser and more comfortable. Gradually, during the Middle Ages, the modern horse collar, padded and fitted to the horse's chest and shoulders, came into being.

At about the time the workhorse was being outfitted, the riding horse was in vogue. During the Dark Ages and throughout much of the Middle Ages all the real secular power lay with the man on horseback. The mounted knight, spear or lance in hand, was the very symbol of chivalry. He was the core of the feudal system and it was his code of civil and

military manners that forms the basis of European manners. In Spanish-speaking countries *caballero*, man on horseback, still means gentleman and man of honor.

THE means of riding on a horse's back didn't arise overnight any more than did the means of getting horses to do heavy work. The saddle, like the harness, is believed to have come from China.

Not too long after the saddle came the stiff stirrup. Until the Dark Ages, stirrups were made of leather. These leather loops were useful in mounting the horse but undesirable in a fighting situation because a wounded or thrown rider could hardly get his feet out of the stirrups in time to avoid being dragged.

Hard metal stirrups from which the rider could withdraw his feet easily and on which he could rest when tired, were brought to Rome by the barbarian immigrants who came through in the declining empire in the sixth and seventh centuries.

However, all the history in the world is not going to make the farmer, practical fellow that he is, stick to using a team of horses when he can use a tractor. After all, a tractor eats less than a horse and can pull many more times its own weight.

Starfish--Bandits of the Oyster Field

On a diet of five oysters a day, starfish wipe out oyster beds.

By CHARLOTTE A. SCHEMP '60

STARFISH have plagued New England oystermen since the industry began over one hundred years ago. At times extensive control efforts have been made, but the oystermen grew lax, giving the starfish time to replenish their numbers to carrying capacity. And since starfish have a tendency to migrate to regions where no control measures exist, the population has remained stable.

The lives of the oyster and starfish are inter-related, the starfish spawning two weeks earlier than the oyster, and normally in the same waters. Both go through a free-swimming larval stage, but being older, the starfish is the first to settle to the bottom as a young adult. When first changed, the starfish may be only one millimeter in diameter, but it has a tremendous appetite and grows rapidly. It may wipe out the newly-set spat of the entire area.

The seed oyster grower is most concerned with starfish control, since small oysters are most susceptible to starfish attack. A single regular sized starfish may kill five oysters per day. The large muscle controlling the opening of the oyster shell is weakened by the "tube feet" lining the starfish rays and which exert a constant pull on the oyster shell. The starfish also secretes a narcotizing substance which prevents the oyster from closing its shells. Then the starfish turns its stomach inside out to eat the oyster meat.

HEAVIEST concentration of the starfish occurs, as you would expect, where food is most abundant. There do not seem to be seasonal changes in the starfish population of an area. In the wintertime, though, the starfish almost invariably loses its voracious appetite, and after the water drops be-

low 41 degrees, it may stop feeding. The starfish is also very susceptible to changes in salinity.

If the salt content of the water goes down during any part of the year, they are sure to migrate. This controlling factor assures oyster growers south of Chesapeake Bay a life free from the pest, but does not help Long Island oystermen.

Liming, mopping, and dredging are the methods used for starfish control.

Mopping is used the most, as a mop causes very little damage to seed oysters. It is most effective in areas where the starfish population is small. The starfish tangle, or mop, operates on a very simple principle. It is usually a long bar on which is attached, at regular spaces, six or eight lengths of chain. Bunches of string or twine are tied along the chains. Two mops, one on each side of the boat, are slowly dragged over the bed, at the edge of the dredge cable. When the mop is hauled up, the starfish are gotten rid of by plunging it into water over 150 degrees. The starfish are killed, and loosened by this method.

LIMING can kill starfish brought up in regular oyster takes. It is also used, though not extensively, as a spray type effect over the water. Lime kills starfish even when a few particles settle on their surfaces, but water currents and tide always inhibit effective coverage. A distributing pipe could be used at the bottom directly over the bed, but the equipment has not been produced on a mass scale, and is expensive and difficult to obtain.

Dredging can be used for uncultivated areas free of oysters, but the population rate is small where the oyster is not numerous. More starfish are captured in an oyster drag than

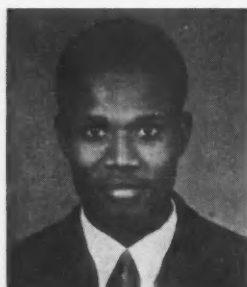
Can the starfish pest be eliminated?



by dredging oyster free areas. A vacuum cleaner type of dredge called the Flower suction dredge is used when starfish are abundant. It is a wide funnel-shaped collector on wheels, operated close to the water's bottom. The difficulty is with the selection of materials sucked in. It would not be profitable to suck in one ton of sand for every two starfish eliminated.

The reason for lax control efforts, or ineffective removal of starfish, is that presently no practical or profitable use for the starfish exists. The creation of a market would cut control cost, and lead to independent efforts toward starfish capture. There would be a reduction of the population to an extent where there would be no peaks.

AT present, sporadic supplies of starfish due to control methods, and the low quality of meat produced by earlier attempts at commercialization, have practically stopped individual efforts. The development of a method of separating proteins out of the body substances might produce a high priced product attracting enough people to induce the creation of a new fish industry.



Martin Oworen

Oworen Reviews Research News

1957

By MARTIN A. OWOREN '60

Last year saw many research contributions from the United States Department of Agriculture, state experiment stations, and others working to advance agriculture in this country. In this issue of the Countryman, Martin Oworen will attempt to show the scope rather than the details of these contributions.—Ed.

Cattle Nutrition

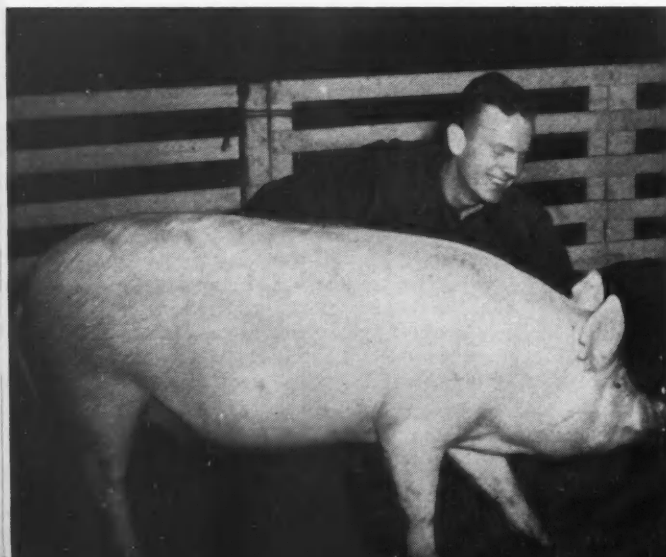
RESULTS of dairy cattle nutrition tests showed that dairy heifers fed large quantities of forage, part of which ought to be hay, need not be fed more than 560 pounds of grain to acquire normal weights at two years of age. Prior to this discovery, dairy heifers were fed 2,000 to 3,000 pounds of grain before first calving.

"Beltsville scientists corrected the long-held misconception that calves must be kept gaining steadily by at least a half pound a day, in order to grow and flesh out economically later." The scientists discovered that calves which received just enough proteins and other nutrients to insure health for several months could make economic gains later.

"Crooked Snout"

OTHER Beltsville tests revealed that atrophic rhinitis, alias "Crooked Snout" of swine is carried by rats and that parakeratosis, a non-infectious mange-like disease of swine, can be cured by the addition of 50 parts per million zinc to diets high in calcium.

Research has been done on swine.



Vesicular Exanthema

FOR the first time since 1939, no case of the dreadful swine disease, vesicular exanthema, was found in this country. This disease is characterized by the appearance of vesicles of varying sizes on the snout, nose, lips, gums, tongue, or feet. In nursing sows, it may take the form of lesions on the udder or teats. The eruptions are usually preceded or accompanied by a rise in body temperature. Often this resembles hoof and mouth disease.

Sorghum

EARLY in 1957, the United States Department of Agriculture released nine new hybrid sorghum varieties to growers, for planting as replacement crops on wheat and cotton land. These hybrids were superior to older varieties, but inferior to hybrids that will be released shortly.

Surface Tillage

UNITED STATES Department of Agriculture soil and water conservation specialists discovered a side-effect of surface tillage, alias "stubble-mulching." Surface tillage, while being an effective measure of erosion control, usually results in a decrease in the nutrient uptake of corn, oats, and wheat. This slight decrease, the scientists point out, can be overcome by fertilizer application.

Forage Production

RESearchers discovered that placing fertilizer and forage seeds in separate "bands" within the seed beds

Proper surface tillage prevents erosion.



... in Retrospect

peri-
man,

doubles the efficiency of forage production in some cases. It also enables farmers to plant forage crops before or after previously recommended times.

Sugar Harvester

OTHER USDA scientists developed a self-propelled sugar harvester which cuts, strips, and loads erect cane stands. This development made possible the replacement of the larger crew needed for cane harvesting by hand, by a two man crew operating the harvester, and tractor drivers hauling cane wagons.

Brucellosis

BY December 10, 1957, four states, Puerto Rico, and 244 counties in 27 states had been declared "modified-certified brucellosis free." This represented the largest number of such certifications in any one year. An area is certified when not over 1 percent of its cattle and 5 percent of its herds are infected. Brucellosis, also called Bang's disease in cattle, and Traum's disease in swine, is a chronic infectious disease. In cattle, it is caused by the micro-organism, *Brucella abortus*. Infection is principally through the digestive tract, but cattle may also be infected through the skin, the teat canals in contact with infective material, or the placement of the organism in the vagina by the infected male. Some symptoms of the disease are abortion in females, testicular inflammation, and sterility in males.

Pest Control

THE year 1957 marked the beginning of a new era in pest control in the United States. Atomic energy by-products and harmless irradiated screwworm flies were used to eliminate screwworms from Southeastern United States.

These cows may be free from brucellosis.



Pest control begins in the laboratory.

Leather Tanning

THE use of imported tanning agents, which presently form the bulk of tanning agents used in this country, may soon be curtailed. Wyndmoor scientists demonstrated that dialdehyde starch, made by chemically modifying starch, is a good tanning agent. It produced easy-to-dye, off-white leather and washable perspiration-resistant leather.

1957 yielded suggestions for diet changes in cattle.



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Neither Sleet nor Snow

Aggies warm up with winter sports.

By MELINDA L. EVERITT '61

TO the students at Cornell, winter brings a season of exciting sports contests which can't be cooled by the cold weather. The upper campus students make a valuable contribution to all of these winter sports teams.

THE basketball team, enjoying one of the finest records this year, is one of the most popular among the aggies.

Edwin Engman, an agricultural engineering major, is playing on Cornell's basketball team for the third year. Ed has a background of frosh and prep school play.

Senior John Nelson has played basketball all through high school and college and also plays on the Cornell soccer team. He is an animal husbandry major and hopes to go into dairy farming.

THE rifle team has the second largest number of ag students participating for the winter season.

John Ritrosky had a background of competitive shooting before coming to Cornell. He competed for three years on high school and junior rifle teams. This is John's second year of competition at Cornell, and he has already received one numeral.

A high school scout team and the Frosh and R.O.T.C. rifle teams at Cornell prepared David Wright for shooting. A junior in agricultural engineering, Dave is in his second year of varsity competition.

Hunting and two years of competitive shooting experience got John Schaub interested in the rifle team. He is a sophomore, majoring in animal husbandry.

James Keenen is another aggie with a background in competitive shooting. A two year student in dairy, Jim is starting his first year on varsity.

David Mahar began hunting with his relatives about ten years ago. After coming to Cornell he shot for the Frosh rifle team and then moved to the varsity. Dave is a junior majoring in extension.

Herman Meisener, a pre-vet student, is another busy aggie. He is on both the rifle and the track teams. He shot for the Frosh team and has earned numerals in his two years of varsity competition.



Nelson

Wiley

Engman



McCreary



Cadiz

ANOTHER track and field man is *Bruce Davis*, a sophomore student in agricultural engineering.

George Gellert, a broad jumper with high school and Frosh experience is in his first year with the varsity. George is a sophomore majoring in agricultural economics. He also plays varsity football.

Another track member is *Barry Tharp*, a second year vet student. On his high school team in Auburn, New York, Barry competed in the high jump. He is now a runner in the 1000 yard and 440 indoor events and the half-mile in the outdoor season.

David Cadiz competes in the 1000 yard dash and the 600 yard indoors and in the 880 and the quarter mile outdoors. He is a senior majoring in landscape architecture and has been on the varsity for three years.

Competing in the 440 yard dash is *Roger Hackson*. A sophomore in economics, Roger started track in high school and also plays varsity football here at Cornell.

Sophomore *Ted Voight* is in his second year of competition as a varsity quarter miler. *Peter Eichhorn* is another quarter-miler as well as a 600 yard man. A sophomore in general ag, Peter started track in high school.

Glenn Benjamin is a sophomore pre-vet who specializes in the mile and two mile run. Another sophomore competing on the varsity team in the two mile run is *Richard Hemmings*, a landscape major.

Last on the list of track men in Agriculture is senior *Kirk McCreary*. He is a general agricultural student and has been a varsity letter man on the track and cross country teams for the past three years.

FENCING is one of the most unusual of the winter sports on campus and one of the most interesting to watch. This sport requires quick movement and much agility. Again agriculture is well-represented with three members on the team.

Co-Captain *Roger Wiley*, number one saber man on the team is a senior in ag economics with three years of fencing experience.

David Crasson, participating in the foil events, is a sophomore pre-vet who just started fencing as a freshman. David's room-mate *Dan Rosenberg*, is another foil-fencer and a sophomore pre-vet.

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Invasion of Fireants

Mound building stowaways
are destroying U. S.
farmland.

By MARTIN A. OWOREN '60

THE fire ant is a reddish black mound-building ant, believed to have entered the United States in 1918 as a stowaway from a South American port. The ant first infested fields near Mobile, Alabama, and then spread to other areas of the South, slowly at first, but very rapidly in recent years.

THE ant exists in three adult forms: the winged queens, which lay eggs; the winged males which mate with the

females; and the work ants, usually wingless and sterile females.

The work ants are the most numerous of the ants. They may vary markedly in color from colony to colony. They are usually dark brown to blackish with an orange band at the base of the abdomen. They may also vary in length from one-eighth to one-fourth of an inch with the smaller ones from the queen's first brood.

The males and females usually live in seclusion until spring when they leave the mounds for their only mating flights. After the mating, the queen finds a nesting place, sheds her wings, digs an underground chamber, and lays eggs. The eggs in each cluster increase in number from about ten at the start to 100 or more later.

THE workers of the queen's first brood form a mound by enlarging their underground quarters. Those of

the following broods help make the mound firmer, and the underground passages more numerous. The subterranean galleries, which may be three feet deep, may contain 2,500 workers and only a few dozen queens and kings. The mounds can be formed in most kinds of soils. They are about a foot high and two feet in diameter. In heavily infested areas, 100 mounds to an acre aren't uncommon.

The ant is a destructive and annoying pest whose vicious bite or sting is harmful to man, bird, and beast. Its appetite for seeds, plants, and trees renders it destructive to many agricultural crops. Its high, hard-crusted mound interferes with crop cultivation and the full utilization of pastures. Its unsightly nest disfigures lawns, gardens, and parks.

The battle against the ant involves three basic measures: 1) surveying to determine the distribution, relative abundance and rate of spread of the pest; 2) progressive treatment of infested areas with the most effective treatments available, and 3) control of the movement of materials that might carry the pest.

TWO of the commonly used battle implements are dieldrin and heptachlor, insecticides whose residual effects normally last for three years. Treatment of infested areas is by airplane, motorized ground equipment, and hand applicators. The current estimated cost of the treatment is 5 dollars per acre. It will be paid by the co-operators, the state and federal government. Meanwhile, researchers are testing the short-run and long-run effects of the application of various insecticides. They are also trying to make the insecticides appealing to the pests, and to find ways of reducing the cost of the treatments.

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By ROCHELLE S. LEFFERT '59



Practical experience is part of the Merrill-Palmer curriculum.

Merrill-Palmer -- "Living Laboratory"



Merrill-Palmer features small classes.

"I hold profoundly the conviction that the welfare of any community is . . . inseparably dependent upon the quality of its motherhood, and the spirit and character of its homes." So said Lizzie Pitts Merrill-Palmer in a statement which led to the establishment of the Merrill-Palmer School in Detroit, Michigan.

THIS school hopes to develop the student as an individual and a leader of the community. To do this, the school brings together knowledge and experience. The course of study is very flexible, with only one required course for undergraduates. The classes, composed of about seven students each, are conducted on a seminar basis, with an emphasis on student participation.

The ratio of students to faculty at Merrill-Palmer is 2:1 which is in keeping with the school's emphasis on the individual. Experts noted for their work in child development and human relations, are frequent visitors.

The students are able to get to know these people personally, and discuss ideas and theories with them.

In addition to the classes, there are "living laboratories." These are places where the student applies theories learned to actual situations. These laboratories are various, and include the infant service program, nursery school, and clubs for children and teenagers. There are also programs dealing with the family, such as the family camp and the family club program. Here, the student concentrates on one family and gets to know it intimately. Personal and family counseling and group study services are available for all age groups.

IN addition to the teaching program, the school provides services to the community, cooperating with neighboring educational institutions, social agencies, recreation centers, hospitals, clinics, business and labor unions. There are also lecture series and publications which extend the school's program to the community.

The organizational setup of the school is different too. The undergraduate may be either a junior or a senior, who has majored in education, psychology, or home economics, and was selected by her respective university. The student studies at

Merrill-Palmer for one term and receives full course credit for the work done there. There are now 45 American and foreign universities cooperating with Merrill-Palmer in this way.

The College of Home Economics at Cornell is a cooperating school. Four students, selected by a faculty committee, are sent each year. There is a similar program for graduate students, who are selected by the Merrill-Palmer School itself. A student interested in graduate work may apply independently or through a cooperating university.

THE school believes that people get to know each other by living together. There are three residences for girls, each one an old, mansion-type home, housing about fifteen girls. There is a house resident, and a cook, but the students have most of the responsibility for running the house. They plan the meals, buy the food, and handle the budget. The jobs of waitress, food manager, hostess, etc., are shifted around, so that each girl receives a variety of experience.

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Cows, Sows, and Beauty Queens

By NORMA J. RUEBMAN '60

THE week of March 24-28 will be the 47th annual Farm and Home Week at Cornell University. Much hard work on the part of the ag. and home ec. students goes into making Farm and Home Week a success, and several committees attend to the various phases of the program. This year's committees are publicity, registration, ushering, attendance, club concession's coordinating committee, Swedish exchange, and dance.

SIGN-up sheets for these committees will be in the lobby of Mann Library from March 10-14. A mass meeting will then be held on Sunday, to fur-

ther acquaint members with their jobs and lay out definite schedules and plans for each committee.

All students of the upper campus are urged to participate in the Farm and Home Week program. Not only will a tremendous service be rendered to visitors on campus, but students working on these committees are guaranteed a good time as well.

SEVERAL of the annual features of Farm and Home Week will be back this year. The annual dance will be held at Barton Hall on Thursday, March 27. The "Country Vagabonds" of Marion's Big Top in Dryden will

provide music for square and round dancing. The Farm and Home Week queen will be crowned at this dance. Ag-Domecon, sponsoring this event, has announced that all upper campus clubs may enter candidates.

The Rice Debate and Eastman Stages will be big attractions. The Rice Debate Stage is to be held on Monday, March 24, at 8 p.m. in Warren 45. Prizes of \$100 and \$25 are offered to the first and second place winners in each contest.

Rice finalists this year are Sieglinde M. Dieken '58, James P. Doyle '58, Gerald P. Hirsch '59, and Douglas D. Innes '59 with Lawrence W. Dries '59 and Robert B. Hunter '59 as the alternates.

ON Thursday, March 27, the Eastman Stage will be held at 8 p.m. in Warren 45. Six finalists are entered in this stage: Abigail A. Stimson '60, Herbert H. Stoevener '58, James P. Doyle '58, John T. Porter '58, Donald C. Taylor '59, and Jonas Weil '58. Thomas A. Brewer '58 has been named as alternate.

Much planning and hard work has already gone into Farm and Home Week. A more varied and interesting program than ever is promised.

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Erl Bates

By LUIS CRUZ, Grad.

New York Indian's "Little White Father".

"WE are old when we are born" is the theory of Dr. Erl Augustus Bates, an outstanding American ethnologist. To support this theory he points out that almost all of our physiological and psychological characteristics are inherited.

He feels, in addition, that "we are civilized only from the ears up." There are differences between men and animals but these are in degree

rather than in kind. Men live in houses instead of trees, are kept warm by clothes instead of hair. However, the most important differences, the use of tools and the possession of language, are manifest only from the ears up.

OF special interest to Dr. Bates in formulating his theories have been New York State's Indians. "The American Indian," he says, "must be

considered one homotype. While his close relationship to the nearest true Asiatic must be recognized, certain uniform physical characteristics of this race of intensely pigmented red-brown men characterize him as peculiar to this continent and a product of its own environment."

Dr. Bates became interested in Indians while he was working as a physician among them. Since then he has devoted much of his time to the improvement of the Indians of New York State.

When Dr. Bates talks of these Indians all his feelings for them come through. He speaks in a clear distinct tone which demands complete attention and admiration. The Indians call him "Little White Father." He speaks of them as "My Indians."

One of the stories he likes to tell is the legend of the coming of New York's Indians as related by the Cayuga tribe:

"THE Great Spirit told us in the fabled cradle of civilization that he has created a land of hill and dale where game and fish were aplenty; where the three sisters (corn, beans, and squash) would grow easily; where we would find happiness and contentment in gratitude to the Great Spirit and where we would find peace with our neighbors. We left the Garden of Eden and traveled many moons and at last came to the land of Tra. We found not our promised land in China and so we went northward across a bridge of land (Bering Strait) beside a still water (Pacific) and come to the land of the ice and big white bears. (Some of the Indians remained there and their descendants are today's Alaskan eskimoes.)

"THE larger group continued to travel and came after many moons to the land of the big red trees. (Some of these Indians stayed to become the Digger Indians of California.) A great group continued south and were lost. These became the Indians of Latin America.)

"... Most of them grew tired and lost faith in the promise of the Great Spirit but a stronger, more virile group continued to travel east and came at length to New York State." The State of New York is, then, the promised land of the Indians. It is our job to help make the state live up to its promise.

Iroquois Chief Rockwell shows one of the "Three Sisters" to some friends.

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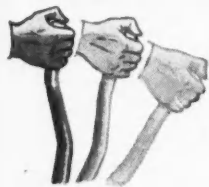
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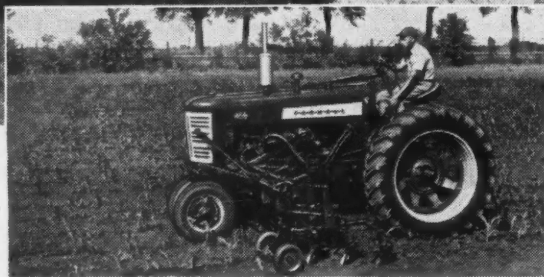
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